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# THE FARM INDEX

June 1967 <sup>8</sup>  
Cornucopia

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"More Meat, Mom"

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# THE AGRICULTURAL OUTLOOK

This year's National Agricultural Outlook Conference will be held in 1969. The USDA is rescheduling the annual conference from mid-November to February. Changes are also being made in the format. Conference planners and participants in recent years have become increasingly aware that changes in the general economic situation of the country are of much concern to agriculture.

So, the Outlook Conference will give more emphasis to such factors as overall economic activity, monetary developments, labor policies, balance of payments situation, and foreign economic conditions.

Scheduling the conference for February will allow a better perspective on economic developments of the past year and enable conferees to consider the outlook in relation to the Federal Budget and the Economic Report of the President.

Traditional outlook sessions for the individual commodities will continue to be held, as will the special sessions for family economists.

Growing commercialization and specialization of farms makes it more and more difficult to encompass the total agricultural picture in one conference. Regional conferences, which have been held during the summer by State Extension groups for the last several years, will continue and perhaps be expanded.

## *Current Economic Picture . . .*

Goods and services (the GNP) and consumer incomes in the United States made record advances in the first quarter of this year. Large consumer expenditures and a high rate of employment contributed, and will produce further but less rapid growth during the next few months.

Pending tax legislation and proposed reduction of government expenditures will tend to slow the increase in activity.

As for agriculture:

—Farm prices and incomes are expected to continue strong for the year.

—Total market supplies will gain only slightly.

—Crop and livestock product prices will probably average above those levels of a year earlier.

## *Livestock Output Tightened*

Although livestock-feed price ratios appear favorable, producers are limiting output.

Summer marketings of fed cattle are expected to be under those of the spring but somewhat larger than those of a year earlier. Feeders will probably continue to market their cattle at light weights as long as prices continue strong.

For the year, increased fed beef and broiler production will about offset the reduced output of veal, lamb, and turkey. Pork production may also be down—a reaction to generally lower prices last year than in 1966.

## *Milk Production Dips*

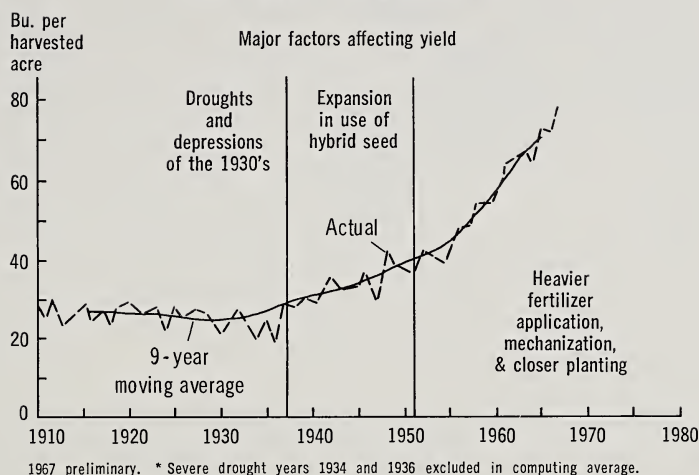
Second-quarter milk production will probably be below that of last year, but not as much below as in the first quarter.

Milk-feed price ratios have been record high every month so far this year.

Prices farmers receive during the year are likely to average about 5 percent above last year's record of \$5.02 per 100 pounds. Contributing to this rise are the new support level for manufacturing grade milk and higher Class I prices in Federal order markets.

Cash receipts from farm marketings of milk and cream reached \$5.8 billion in 1967—up 4 percent from a year earlier and 15 percent from 1965. Prospects for this year are for another rise of some 4 to 5 percent.

## CORN YIELDS CLIMB SHARPLY SINCE 1950



## CORNucopia

*The supersize corn yields which modern day farmers reap are the result of years of research on better seed, and widespread use of improved farming practices.*

From the 1630's to the 1930's the American farmer's recipe for bigger and better corn yields was to save the best ears of seed corn from each crop for planting the following season.

Corn yields zigzagged up and down throughout the 300-year period, but the long term trend changed only slightly. It's only been in the past 30 years—with

the widespread use of hybrid corn, more liberal fertilizer application, and more modern farming practices—that U.S. corn yields have risen appreciably and fairly steadily.

Here are some highlights of a recent ERS study of the changes in trends and year-to-year variations in corn yields over the past half century:

During 1916-35, there was practically no change in the trend of yields, partly because of poor weather, partly because of the economic depression. Low corn prices during the depression years of the thirties did not en-

courage expenditures to improve production methods.

From 1935 to 1951, corn yields rose moderately—at an average annual rate of 2.5 percent, or 0.8 bushel, a year.

The development and expanding use of hybrid seed was a major factor contributing to the gain. The higher yielding hybrid corn prompted farmers to invest more in other inputs to boost yields. More favorable returns to corn producers during and following World War II—as well as the reduction of corn acreage in the lower yielding areas of the country—also helped boost the



national average for corn yields.

During 1951-65, however, corn yields rose much more rapidly. The average annual increase during this period was 2.3 bushels per acre—nearly three times as much as in the previous 16-year period.

Heavier fertilizer application, more plants per acre, weed control, root worm control, and improved hybrids were all important in the sharp upward trend in yield.

The total quantity of nitrogen used on corn in the five Corn Belt States—Ohio, Indiana, Illinois, Iowa, and Missouri—rose from an average of only about 6 pounds per acre in 1951 to 92 pounds in 1967. The average number of corn plants grown per acre gained by more than 50 percent in the past 10 years alone.

An additional factor, although less important, was the expansion of irrigation in the Western Corn Belt and Great Plains. Nebraska farmers, for example, irrigated about 32 percent of their corn acreage in 1964; Colorado farmers, 82 percent; and Kansas farmers, 12 percent. For the United States, however, only about 1.8 million acres—or 3 percent of the total corn acreage harvested for grain—was irrigated.

The long-term decline in corn acreage in the Southern States, where yields are generally below those in the Corn Belt, also contributed to the increase in the national average corn yield.

The sharpest drop in plantings was in the South Central States, where corn acreage fell from nearly 24 million acres in 1919 to only about 4 million in 1967.

On the other hand, the 49.5 million acres harvested in the North Central Region in 1967 was slightly above the 1919 level. And in most of the North Central States, average yields ranged from 70 to 100 bushels per acre in 1967, compared with 40 to 60

bushels in most of the Southern States.

Bigger yields aren't the only benefit today's farmers reap from improved technology. Year-to-year fluctuations (based on percentage change) are also much less pronounced than in the past.

Mechanical power has made it possible to time planting and cultivating more effectively, especially in years when weather has limited the time available for these operations. At the same time, improved strains of hybrids and increased use of nitrogen fertilizer have produced stronger, healthier plants less subject to drought damage. (1)

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### Modern Farmer Must Have a Green Thumb and Be a Finance Whiz, Too

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When a farmer starts expanding his business, particularly if he must borrow money, he quickly learns that his ability as a good money manager is as important and may carry as much weight with a lender as his skill in farming.

Because proof of a farmer's capabilities along both these lines is sometimes hard to come by, lenders often take chances on an individual farmer. At the same time, they want to hedge their risks as best they can without directly intervening in the farmer's operations.

As one banker comments:

"The farmer won't let us become closely involved in his business. If you tell him what decisions to make, you just lose a customer."

Even so, as loans become larger, lenders are demanding closer involvement in farm operations.

They point out that the day is almost past when they can require only a net worth statement.

They say that monthly income, expense, and production records

are essential for accurately assessing a farm operation and its capital requirements.

Lenders also encourage farmers to take advantage of available technical assistance before even considering expansion.

Such aid might come from a talk with the local extension agent, university extension specialist, equipment dealer, or a farmer who has already successfully expanded his operation.

After the necessary information has been obtained, farmer and lender can then agree on repayment terms adjusted to the farmer's ability to pay.

They can avoid terms difficult or impossible for the farmer to meet: For example, a 3- or 4-year equipment loan that would require the farmer to make an unreasonable rate of return (30 to 40 percent per year).

Similarly, an attempt to repay real estate credit too quickly can use up funds needed as vital operating capital.

A thorough study of the farmer's financial position also would indicate his long term credit needs.

When both parties underestimate total needs, the lender may end up against a legal loan limit and the farmer may be forced to seek financing elsewhere.

To avoid forcing the farmer to carry this "split line of credit," the lender should be prepared to handle all the farmer's followup loan needs.

Today's lender must also adjust to making larger farm loans. The typical oldtime banker's attitude that "I'd rather have ten \$20,000 loans than one \$200,000 loan" is changing.

Lenders in agricultural areas are finding that it pays off to have a staff specialist to handle farm expansion problems.

Farmers, in turn, often profit by drawing on the knowledge of these specialists as well as others in their expansion enterprise. (2)

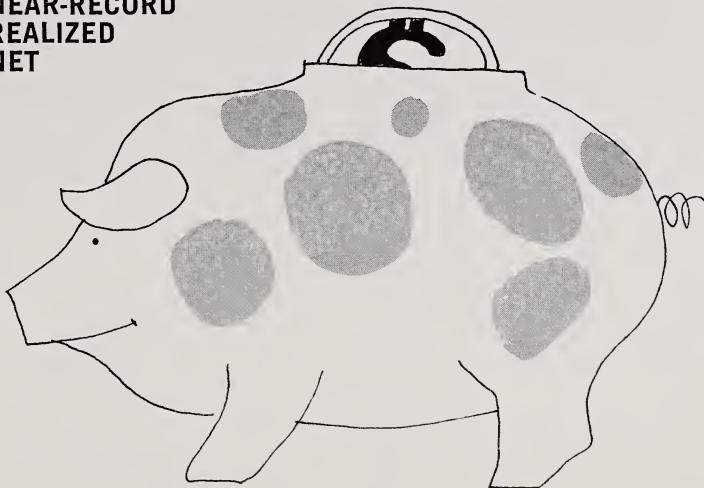
## NEAR-RECORD REALIZED NET

At \$4,573, realized net income per farm in 1967 was surpassed only by the record high of \$5,049 in 1966. (Realized income is not adjusted for changes in inventories.)

Data for 48 States show that in 1967 per farm income increased in 10 States—all in the South and West. Thirty-eight States showed decreases from the record highs of 1966. However, in all but 12 States, realized net income per farm was higher last year than in 1965.

Of the five leading farm States, California was first in 1967 with \$11,857 per farm, based on total receipts from marketings. Illinois ranked second, with \$5,892, followed by Iowa, Texas, and Minnesota.

On the whole, realized net income per farm was highest in the Western Region, averaging \$7,367. The South Central Region, with an average of \$3,654, had the lowest. (3)



State and region	Realized net income per farm			State and region	Realized net income per farm		
	1965	1966	1967		1965	1966	1967
Dollars				Dollars			
Maine	8,191	6,020	3,705	North Carolina	2,980	3,691	3,636
New Hampshire	1,711	2,240	1,309	South Carolina	2,769	3,307	3,655
Vermont	3,828	4,692	4,654	Georgia	4,530	5,155	5,033
Massachusetts	5,062	5,535	4,835	Florida	11,411	11,330	11,051
Rhode Island	3,500	3,816	2,136	South Atlantic Region	3,702	4,151	4,139
Connecticut	5,973	8,918	8,078	Kentucky	2,400	2,482	2,730
New York	4,719	5,561	5,376	Tennessee	1,921	1,903	1,815
New Jersey	6,069	8,801	7,307	Alabama	2,802	2,879	2,534
Pennsylvania	3,356	4,110	3,874	Mississippi	3,547	4,155	4,498
North Atlantic Region	4,444	5,146	4,661	Arkansas	4,649	5,451	4,225
Ohio	3,128	4,260	3,570	Louisiana	3,328	4,643	5,452
Indiana	4,255	5,236	4,114	Oklahoma	3,387	4,001	3,486
Illinois	5,392	7,462	5,892	Texas	4,463	6,070	5,010
Michigan	2,958	3,717	3,396	South Central Region	3,288	3,956	3,654
Wisconsin	4,002	4,970	4,664	Montana	4,768	6,980	6,631
East North Central Region	4,022	5,243	4,410	Idaho	4,574	5,390	4,886
Minnesota	3,868	4,699	4,163	Wyoming	3,606	6,589	6,034
Iowa	6,301	7,344	5,822	Colorado	3,407	4,863	3,817
Missouri	3,298	3,790	3,273	New Mexico	6,004	8,689	8,143
North Dakota	5,430	6,569	5,933	Arizona	21,457	22,826	23,650
South Dakota	5,206	6,529	6,001	Utah	2,205	3,210	2,923
Nebraska	4,903	6,710	6,048	Nevada	3,877	7,499	7,163
Kansas	3,619	6,036	5,259	Washington	4,416	5,818	6,417
West North Central Region	4,559	5,714	4,922	Oregon	3,292	4,000	4,160
Delaware	7,507	7,530	8,461	California	9,853	12,461	11,857
Maryland	4,496	4,508	4,533	Western Region	5,995	7,677	7,367
Virginia	2,390	2,367	2,443	United States	4,109	5,049	4,573
West Virginia	935	967	855				



## The Turkey Flock Was Record Large, But Income Dipped a Bit During '67

Turkey growers raised a record 126.4 million birds in 1967—8 percent more than the 1966 crop.

Gross income, however, at \$458.8 million, was down about 6 percent from the 1966 record high of \$485.7 million. The average price received during 1967 for turkeys marketed was 19.5 cents per pound, compared with 23.1 cents per pound in 1966.

California, producing 19.0 million birds, had the largest flock and grossed the highest income from turkeys, \$70.6 million.

The No. 2 turkey State, in both numbers and gross income, was Minnesota with 17.7 million birds and \$53.2 million in earnings.

All regions except the North Atlantic and East North Central raised more turkeys last year than in 1966. The sharpest gains were 19 percent in the South Central Region—where Arkansas and Texas are the leading producers—and 13 percent in the West.

Gross income was below a year earlier in all regions except the South Central, which gained 8 percent. The sharpest declines were in the East North Central and North Atlantic Regions, which registered 16 and 11 percent, respectively. (4)

## Credit Is the Turnstile Leading To Many Farm Real Estate Transfers

Credit—in one or more forms—was used for 80 percent of all farmland transfers in the year ended March 1967. This was 3 percentage points above the record level of the previous year.

Regionally, the proportion of

credit-financed sales ranged from 72 percent in the Appalachian, Southeast, and Delta Regions to 90 percent in the Mountain Region.

The average loan amounted to about 73 percent of the market price.

Financing by the seller continued to gain in popularity. Some 41 percent of all credit sales reported in March 1967 were financed by the seller—and more than three-fourths of these loans were land contracts.

Retired farmers were the most willing of all sellers to take back a mortgage or to sell on an installment land contract. About 47 percent of the retirees agreed to help finance transactions.

About a third of all sales by active farmer-sellers, local non-farmers, and absentee owners also used a form of seller financing in the sale. (5)

### What Is a Farm?

A farm is a 5,000-head feedlot in Arizona. A farm is a 350-acre cash grain enterprise in Iowa. A farm is 60 acres of tobacco in North Carolina.

A farm is all these and more. For census purposes, however, a farm is defined as any place of less than 10 acres if estimated annual sales of agricultural products amount to at least \$250.

Places of 10 acres or more are counted as farms if their estimated annual sales of agricultural products reach at least \$50.

Places with less than the \$50 or \$250 minimum estimated annual sales are also counted as farms if they can normally be expected to produce enough agricultural products to meet the defined requirements. The numerical roundup of farms therefore includes some places engaged in farming operations for the first time, and also places affected by crop failures or other unusual conditions.

The number of farms expected to be in operation during 1968 in the 50 States is estimated at 3,059,000—about 3 percent fewer than in 1967. (6)

## Market Values March Upward; Land Prices Gain 6 Percent During 1967

The national farmland price index ticked off another advance in the 12 months ended November 1, 1967.

Led by sizable advances in the Lake States and Corn Belt, the national index of average value per acre climbed to 166 (1957-59 = 100) during the year. This was a gain of 6 percent over a year earlier.

In dollars, an acre of farm real estate was worth about \$173, compared with \$164 a year earlier. The average market value per farm rose to \$65,700 from \$60,600 in 1966.

The Lake States and Corn Belt, each with gains of 8 percent, lead all regions in the advance in land values. The Mountain States, with a 3-percent gain, had the smallest increase.

Value changes ranged from an 11-percent rise in Missouri to a 1-percent decline in Florida, attributed mainly to a drop in the market value of Florida's citrus groves.

Total value of farm real estate (including land and buildings) on November 1, 1967, was estimated at \$189.5 billion, up \$9.6 billion from a year earlier.

The value of farm buildings, put at \$35.9 billion, reached a new high in 1967. However, as a proportion of total farm real estate, building values continued their downward trend. Last year they represented 19.7 percent, 0.3 percent less than in 1966.

Opinions of market reporters last October regarding 1968 trends in land values tended to be conservative. Half anticipated changes of less than 5 percent in market values.

Many foresaw a slowdown in land value increases in the Corn Belt, Northeast, and tobacco areas. And more than half anticipated little change in the price of pasture and irrigated land. (24)



*There are various remedies for lagging economies in rural areas. And there are various techniques to determine which will work the best. One is demonstrated here.*

Counties around Asheville, N.C., are largely rural and have a predominantly low per capita income.

Methods to analyze areas like this and the possible effects of new programs designed to stimulate their economy are being developed by ERS economists.

They have been working with facts about Asheville—derived from the 1960 census—and using the area as a research model.

Between 1950 and 1960, numbers of professional, technical, and kindred workers in the area

grew, but not as much as they did nationwide. At the same time, numbers of farmers, clerical workers, and laborers declined more rapidly than nationwide.

Those people who are of working age in the area are predominantly in low-wage brackets—such as farmers, operatives, or laborers. With these limited

economic opportunities, many others of working age do not join the labor force.

The industry of the 10-county area is geared mainly to agriculture, wood, textile, and chemical products. All of these industries, except chemicals, are declining at the national level.

Per capita incomes averaged about \$1,300 in 1960—\$550 below the national average.

Because business interests around Asheville are generally allied with low-wage occupations and nationally declining industries, it is difficult to find large-scale, national markets for those commodities which are produced in the area and have potential to stimulate local growth.

But, assuming such large-scale markets could be found, ERS

## The Asheville Analysis



economists, using a rapid low-cost model, can estimate the effects of increased sales on the local economy.

They are able to trace the impact of changes in the activity of any one industry in the area on the flow of goods and services among all industries in the multi-county economy.

For example—given the economic situation of the area in 1960—what could have been expected to happen locally for a \$1 million increase in sales to markets outside the area?

*Chemical products.* Adding \$1 million of exports in 1960 would have boosted local economic activity by an estimated \$3.5 million and resulted in jobs for almost 200 people. Forty of these jobs would have been in the chemical industry—the rest in supplying goods and services.

*Agriculture.* An additional \$1 million of agricultural exports in 1960 would have resulted in \$3.8 million worth of economic activity and employment of about 300 area workers—100 of them on farms and about 200 in farm-related businesses.

*Apparel and textiles.* The amount of economic activity sparked by another \$1 million of exports in 1960 would have reached \$4.5 million for this industry. Over 300 workers would have been added to the labor force—about 80 in the industry and 235 in supporting industries.

The amount of economic activity generated by each of these three industries includes salaries for workers. It also includes the value of goods and services which would be needed with increased economic activity in the area.

While these findings are more descriptive than analytical in terms of what has happened, they provide background that can help local development planners make decisions about job development programs and new industries. (7)

## Problem for Counties: Balancing The Budget While Still Providing Services

The fewer the people, the higher the cost. So goes one rule of thumb for the cost of maintaining the machinery of county governments.

It's true enough as far as it goes. But any attempt to apply the rule to all expenses for local government soon collides with contrary evidence.

Take the cost of administration. There's plenty of evidence that the per capita cost of services performed by administrative officers or the county boards of supervisors is consistently higher in low population counties, lowest where population is the most dense.

But there is no such close relation between the size of the population and the cost of many other functions.

Welfare costs per capita, for example, have no close relation to the size of the population. Nor do such expenses as police and fire protection have such a relationship.

Such studies suggest that consolidation—an often recommended remedy—may be less than all-purpose as a solution for spiraling costs of local governments, even where a merger might be politically acceptable.

The counties, of course, do have recourse to solutions other than merging their jurisdictions to save money or lopping services to avoid expenses.

For one, a number of neighboring counties in the Nation provide services jointly through contract agreements. The contracts provide for services ranging from police and fire protection, to education, libraries, and mental health.

However, few counties, if any,





have tried to accomplish such fundamental jobs as meeting welfare needs, road maintenance, and recordkeeping by contract or cooperation. They might well do so.

For instance, a sparsely populated county often finds itself without the financial resources to fulfill its obligations. It has too few people to pay for modern equipment, and the scattered population means that the equipment it does have is under-used in the extreme.

Inter-county contracts could provide funds to update the equipment while lowering per capita costs.

By programing road maintenance, counties could afford to use specialized equipment and hire skilled personnel. In effect, cooperating counties could establish a specialized engineering and drafting pool, rather than having to resort to makeshift arrangements.

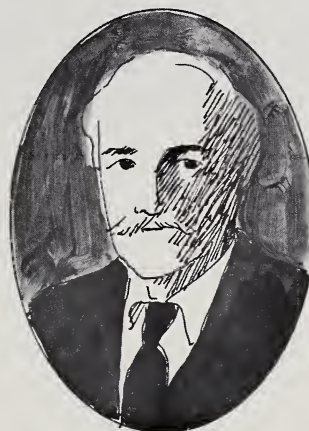
The same approach presumably could be applied to most other tasks.

County governments have found many other ways of trying to hold the line against rising costs. A few of them are:

—In North Dakota, the State constitution requires a county with a population of less than 15,000 to combine the offices of county judge and clerk of court. In counties with fewer than 6,000 people, the office of register of deeds is also combined into the one office.

—The county government structure in Michigan provides that the clerk, or auditor, serve as secretary to a number of offices including the county supervisors, county court, and, at times, the county road commission.

—Los Angeles County offers local communities a cafeteria choice of services such as road construction, law enforcement, recordkeeping, assessment and tax collection. (8)



## *Men and Milestones*

### **"FATHER OF AMERICAN FORESTRY"**

*The time: 1892. Gifford Pinchot, in charge of the forests of Biltmore—the huge George Vanderbilt estate in Asheville, N.C.—is instituting revolutionary forestry practices learned at the French Forest School in Nancy, France. Pinchot's innovations soon won him membership in the National Academy of Sciences.*

\* \* \*

In 1896, Gifford Pinchot was tapped by Grover Cleveland to join a Forest Commission set up by the President to survey national forests and recommend government forest policy.

Out of the Commission's work came the recommendation that some 22 million acres of forest land be added to the Nation's reserves.

Forester and conservationist Pinchot developed the plan to administer these reserves.

From 1898 to 1910, as head

of the Forestry Division and, later, Forest Service in the Department of Agriculture, Pinchot worked to impress all America with the nature and importance of forestry work. During these years, he saw the country's forest reserves swell from 40 million acres to 200 million acres.

Under Theodore Roosevelt, himself a staunch conservationist, Pinchot served on the Commission on Public Lands, the Inland Waterways Commission, the National Conservation Commission, and the Country Life Commission.

In 1920, he became head of Pennsylvania's Department of Forestry and later was elected Governor of the State for two terms. As a result of his forward-looking programs, some 20,000 miles of secondary roads were surfaced under his supervision. This vastly improved the Pennsylvania farmers' transportation and generally stimulated the State's rural economy. (9)



## THE RURAL INDEX

Rural communities are striving to provide jobs and social opportunities for their people. Their problems vary.

Development programs are available but have limited resources. Thus, it is important that an area receiving aid not only exhibit need but also the potential to develop.

ERS has devised a means of selecting those areas which meet these criteria—an index of rural development.

Two sets of factors are used in the index—one to assess the county's need, the other its potential for growth.

The factors used to describe need are:

—Percentage of rural families with less than \$3,000 annual income.

—Percentage of the population over 25 years old who have completed high school or more; and,

—Rural family median income.

Factors determining a county's potential for development include:

—Size of trade center;

—Rural population density per square mile; and,

—Distance in miles to the nearest major trade center within the statistical area.

Each of these six factors is plotted on a scale with a range from 1 to 10.

For example, low incomes and educational levels indicate great need and would receive a high index rating of about 9 or 10. A higher education level or greater earning power would score lower on the scale.

Similarly, a fairly large county trade center plus a nearby city indicates a high potential for development—and a high index rating.

Thus a county in great need scores close to 30, or almost 10 for the three need factors. And a county with a high development potential also scores close to 30. The sum of the two scores is the index of development, with 60 the highest rating.

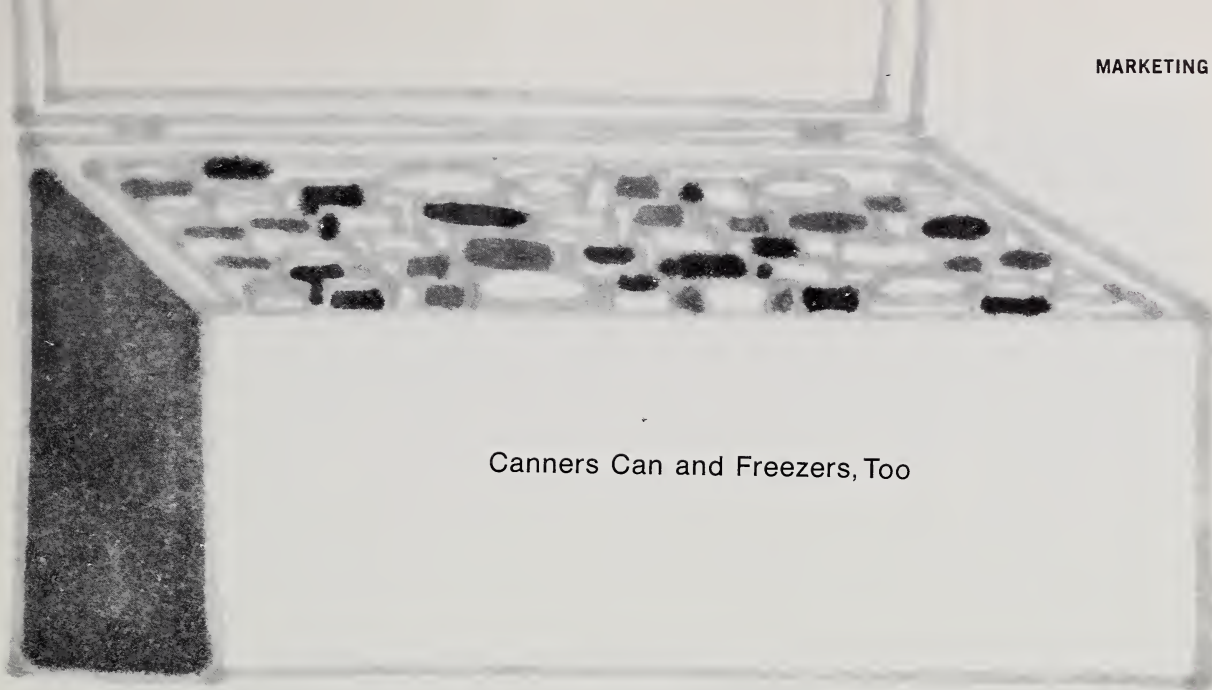
County A (in the table below) has a high need for development (index of 30) and a fair potential (index of 17). County B, compared to County A, has less need and potential but if adequate program funds are available both counties could receive program allocations.

County C has a low need and a high potential. Comparing total indexes, County C would not be allocated any development program resources.

The index points to counties with a need of—and a potential for—development. Economic analysis and an appraisal of the likely effects of new programs would be the next steps. (10)

10-POINT SCALE FOR INDEX OF RURAL DEVELOPMENT INDICATES NEED AND POTENTIAL

Characteristics	County A		County B		County C	
		Index value		Index value		Index value
<b>INDEX OF NEED</b>		<b>30</b>		<b>27</b>		<b>6</b>
Percentage of families earning less than \$3,000 annually.	62	10	60	10	10	1
Percentage of population over 25 years old that completed high school or more.	24	10	30	8	45	4
Rural family's median income.	\$1,800	10	\$2,700	9	\$8,000	1
<b>INDEX OF POTENTIAL</b>		<b>17</b>		<b>14</b>		<b>27</b>
Population of county trade center.	4,500	1	12,000	3	75,000	8
Number of people per square mile.	23	7	4	1	35	9
Distance in miles to nearest major trade center within the area.	38	9	30	10	35	9
<b>TOTAL INDEX OF DEVELOPMENT</b>		<b>47</b>		<b>41</b>		<b>33</b>



## Canners Can and Freezers, Too

*As the U.S. population grows, the freezing and canning industries grow even faster. Result: Sharp competition in today's expanding market will be keener tomorrow.*

Canners and freezers aren't going to have much chance to be bored during the next decade.

Right now they have their hands full trying to keep up with the growing demand for frozen and canned fruits and vegetables. Looking ahead, this demand is likely to continue strong.

But there's a limit to how much food people can eat. And many Americans appear to be pushing this limit already.

According to one unofficial estimate, in 8 years from now the average family will have \$10,000 a year after taxes, in current dollars.

Will they spend the additional money for more food? Probably not. But they are likely to spend more money for better quality food and for food that is even easier to prepare than today's convenience items.

Meanwhile, mechanization and output per man-hour on the farm

can be expected to increase further. More and more crops will be adapted to mechanical harvesting. And fertilizers, herbicides, and pesticides will continue to work miracles in the fields.

What will this mean to the canning and freezing industries? A much more competitive situation for processors.

The number of fruit and vegetable canneries has already declined—from 1,630 in 1958 to 1,422 in 1963, the date of the most recent tabulation. Yet average output per plant during this period rose almost 17 percent—from 8.06 million pounds in 1958 to 9.40 million pounds in 1963.

The situation with the frozen food industry is almost the opposite. From 1958 to 1963 the number of freezing plants increased more than 50 percent. But average output per plant decreased during the same period—from 10.05 million pounds to 9.6 million pounds. The reasons appear to be that new entrants into the frozen food field take some time to operate at full capacity.

*Struggle for dominance.* Because of the growing U.S. population, overall prospects for the canning and freezing industries

look good. But the struggle for dominance between firms, States, and regions during the next few years is expected to shake out the weaker parties in each category.

Crop production areas vary considerably in climatic and soil characteristics which strongly affect yields and per unit costs.

Costs of other items such as labor, land, fertilizer, lime, and weed and insect control also vary among States and regions. A profitable alternative crop or size of farm in one area may not be profitable in another, and both are crucial factors in the competition.

Similarly, expenditures for plant construction, labor, electricity, water, taxes, and other items all differ from region to region and State to State. Length of operating season and opportunity to use canning and freezing equipment for processing other products also affect the ability of competitors to stay in the race.

The winners will be determined on the basis of their ability to strike the most profitable balance between costs—cost of production, of processing, of selling, and of distribution. (11)



## Farmer Gets "E" for Effort; He's Top U.S. Worker In Output Increase

The U.S. farmer has always been one of the most efficient producers in the world.

From 1948 to 1963, while non-farm private economy increased output per man-hour 2.8 percent per year, the farmer increased his efficiency even more. He topped all other workers, with an annual 5.7-percent increase in output per man-hour.

This was well above the 3.3-percent average rise in labor productivity per year for the entire private economy and the 2.7-percent annual increase recorded by the food distribution industry.

Output per man-hour for the food distribution industry as a whole went up 48 percent between 1948 and 1963. Estimates for 1966 show it still going up but at a slower annual rate.

There was a 10-percent gain between 1948 and 1963 in the number of people engaged in food distribution. But all of this gain occurred in away-from-home eating places. The number of people employed in food retailing and wholesaling establishments declined 5 percent during the period.

But in the years since 1963, it is estimated that employment in retailing and wholesaling has grown an average of 3.6 percent a year. In eating places, the increase in employment appears to have leveled off to an estimated 4.8 percent annually.

Much of the increase was due to reduction in the importance of small clerk-service stores.

Only about 63 percent of food sales were in self-service stores 20 years ago. Today nearly all food stores are self-service operations.

Sales per worker (in 1947-49 dollars) have increased 47 percent since 1948 as the supermarket industry has moved toward larger stores to reduce retailing costs per unit of sales and

achieve other economies that come with an increase in size.

Introduction of palletized storage, a wide variety of automated equipment, and other improvements have similarly increased the average output per man-hour in wholesaling firms. (12)

## Processed Turkey Suffers Slight Cut In First Decline of a Growth Market

If the current popularity of frozen turkey TV dinners, turkey rolls, roasts, and other processed turkey products continues, the old-time question at the dinner table of "Who gets the drumstick?" may eventually become "What is a drumstick?"

Output of processed turkey and sales of the Federally inspected products have skyrocketed in re-

cent years. About 80 percent of all turkeys produced each year are Federally inspected and certified ready-to-cook.

In 1962 about 148 million pounds of Federally inspected turkey meat were converted into convenience foods. By 1966 this figure was 335 million pounds. With the consequent buildup in stocks and relatively lower price for whole turkeys, output declined in 1967. Even so, the 318-million-pound package of processed turkey products Federally inspected in 1967 was the second highest volume on record.

In 1962, further processed turkey meat represented 13.5 percent of all U.S. certified turkey production. In 1966, it was 22.7 percent, and in 1967, it was 19.1 percent.

Meanwhile, with a sharp rise in the turkey crop, production of turkey meat reached a record volume of about 1.8 billion pounds last year. Since there was a carryover of 267 million pounds on hand in cold storage January 1, 1967, the total available for all purposes in 1967 was fairly close to 2 billion pounds.

Americans consumed about 1.7 billion pounds of this, leaving 370 million pounds of turkey in cold storage on January 1, 1968—103 million pounds more than a year earlier.

Turkey production is therefore expected to be cut back substantially for the main marketing season this fall.

Out of last year's turkey output, the military forces bought about 53 million pounds—6 percent less than in 1966. Exports, however, rose 4 percent to about 49 million pounds.

And the USDA stepped up purchases of ready-to-cook turkeys for the school lunch program to 74.8 million pounds from 12.9 million pounds in 1966. These USDA-purchased turkeys are distributed to schools participating in the national school lunch programs. (13)

## Great Cotton Lengths

In cotton, the longer the staple length, the better the price.

And this year—according to the USDA's Consumer and Marketing Service—the average staple of preliminary ginnings is going to longer lengths than ever.

The staple length of the 1967 cotton crop averaged 33.4 thirty-seconds inches (Standard = 32 thirty-seconds or 1 inch) and was the longest on record.

Comparable ginnings from the 1966 crop stapled 33.0 thirty-seconds.

The grade index (American Middling White Cotton=100) for the 1967 ginnings was 92.8—up from the 92.0 recorded a year earlier.

Also, the amount of cotton stapling  $1\frac{1}{16}$  inches and longer ginned in 1967 represented a record 62 percent of the total crop—an increase over the previous high of 56 percent in 1966.

The prospect of premium prices for the longer staples this season caused many cotton farmers to plant longer stapled strains and varieties last year. This trend is likely to continue for the 1968 crop. (14)





*Soviet farmers get a break as government planners scale down production targets and step up the level of farm inputs in the 1966-70 plan for agriculture.*

Agriculture, former stepchild of the Soviet economy, has received considerable attention in recent years.

The Soviet Union's stated agricultural objectives have remained basically unchanged since the introduction of massive collectivization in the late 1920's and early 1930's. These objectives are:

- to acquire, at the lowest cost, the largest possible supply of food and raw materials for domestic use and exports.

- to develop communism in agriculture and in the rural sector.

- to be as self-sufficient as possible in farm products.

At times, however, one or another goal—such as collectivization or capital formation—has preempted those of raising output, boosting productivity, or bettering diets. Such was the case from 1930 through 1953, under Stalin.

Khrushchev, on his rise to power, attempted to improve Soviet agriculture by feeding in more capital, machinery, fertilizer, and land—especially land. And from 1953 to 1958, gains were made in agriculture—so much so that Soviet planners in 1958 turned their attention to other segments of the economy.

But the child still wasn't able to walk without help. Pushed into the background, agriculture didn't get all the productive inputs it needed. Furthermore, reliance on extensive means (such as land expansion) to increase output made production espe-

cially sensitive to variations in weather. Output was therefore unstable.

Unattended and undernourished, agriculture once again began to stagnate and then deteriorate—especially in the grain and livestock sectors.

The climax of this deterioration—sparked by the grain crop failures in 1963 and 1965—was the dramatic shift of the USSR from an important net grain exporter (averaging 6 to 7 million tons annually during 1959-62) to a major net grain importer (averaging about 7 million tons annually in 1963-65).

Agriculture's failure was one of the factors in Khrushchev's fall from power. His successors, charged with the rejuvenation of Soviet agriculture, have sought to do it essentially through intensive means. Larger grain crops have been the immediate goal. To

achieve it, the Kremlin has altered many of its policies for agriculture and rural life.

Production targets and government planned purchases in the eighth 5-year plan for 1966-70 reflect a more realistic appraisal of the capabilities of Soviet agriculture and the needs of Soviet farms.

Fixed levels of 1966-70 government purchases of most farm products have been established: a constant annual level for grain and a gradually increasing level for livestock and other farm products. Purchases above these fixed levels are made at bonus prices: 50 percent bonuses for grains and cotton, and varying percentages for certain other products.

The lower level of required sales to the government and the paying of bonuses for sales above this level have contributed to a sharp increase in incomes received by farmers.

Farm incomes were given a further boost by major price increases for agricultural products announced in years since 1964 and by good harvests in 1966 and 1967.

Incomes of collective farmers rose almost 40 percent between 1964 and 1967.

The traditional method of paying collective farm members is also being altered. Formerly workers were usually paid off at the end of the year with what was left over after other farm costs had been paid.

The system is being changed to one of regular monthly wages which take priority over other payments from the farm's income. Collectives unable to meet these regular wage payments are given government loans. Furthermore, there are plans to raise the collective farm wages to the level paid for similar work on state farms.

The rural worker is also get-

ting attention as a consumer. So that he can actually enjoy the benefits of better pay, efforts are underway to make more and better consumer goods available in rural areas. The longstanding policy of charging higher retail prices for consumer goods in rural areas is also being abandoned.

Productive inputs and capital investment in agriculture have increased significantly since 1964 and are scheduled to rise further. Most striking is the gain in fertilizer application, especially on grain. Annual deliveries of machinery—especially tractors and trucks—have risen sharply, too.

Soil conservation and other land use practices have also been revamped. There has been a reduction in sown area, especially in the grain regions, but more land is being left to fallow or planted to grass.

The heavy exploitation of dry areas in the virgin lands, which occurred under Khrushchev, is being gradually relaxed. Greater emphasis is being placed on developing the nonblack soil regions in the northern part of European Russia where moisture is more plentiful and regular, and to winter grain production in the Ukraine and North Caucasus, where yields are higher and the response to fertilizer is greater.

A major program for land reclamation and irrigation has been announced for 1966-75. Seventeen to 20 million acres of land, mostly in the drought-plagued areas of the southern Ukraine, Russian Republic, and Central Asia, are to be irrigated.

Another 37 to 40 million acres are to be reclaimed, improved, or drained—primarily in the non-black soil zone. These measures are designed to stabilize grain yields.

Providing water for livestock on about 125 million acres of pastureland, and control of wind and water erosion on about 3 million acres of land are other goals of today's Soviet planners. (15)

USSR UPS CAPITAL AND OTHER INPUTS FOR AGRICULTURE IN 1966-70 PLAN

Item	Unit	Actual		Planned 1966-70 <sup>1</sup>
		1956-60	1961-65	
Capital investment, total for 5-year period	Billion rubles	27.3	42.9	* 71.0
Annual average deliveries of machinery to agriculture:	Thousands			
Tractors		149.5	218.5	358.0
Trucks		96.8	70.9	220.0
Grain combines		65.9	77.4	110.0
Fertilizer delivered to agriculture annually by end of period	Million tons (bulk weight)	11.4	27.1	55.0

<sup>1</sup> Original targets of 5-year plan, which apparently have been reduced moderately, but new data are not available. <sup>2</sup> Plan directives do not specify whether this refers to total investments or only investments in objects of a productive nature.





### To Boost Production, East Europe's Officialdom Loosens Grip on Farms

The attempt to make East European agriculture a mirror image of the Soviet Union's has not met with great success.

True, since World War II most of the usable land and a large proportion of the livestock industry have been socialized in Bulgaria, Czechoslovakia, East Germany, Hungary, and Romania. And collective state farms are as much a part of East European agriculture as they are of Russian farming.

But East European planners have become aware that conditions of compulsion and low priority, which prevailed during the period of socialization, have held down farm output and productivity.

Moreover, collectivization weakened the resource base in most countries. The area of arable land declined in East Germany, Hungary, and Poland. Cat-

tle numbers dropped in Bulgaria and Hungary. In all countries, skilled labor left agriculture. And low investment over a long period of years kept efficiency low and costs high.

Between 1963 and 1967, the countries of Eastern Europe initiated major policy changes to remedy the situation. Increasing the rate of growth in agriculture—or at least stabilizing it—was given precedence over the full socialization of farm resources.

In almost all current country plans, increased use of material inputs such as fertilizer and machinery is given priority.

Production targets are also generally lower and more closely related than formerly to the economic capabilities of each country.

Major reforms in pricing policies have also been introduced. Farm prices have been raised to levels more in line with the relative scarcity of supplies and costs of production.

The higher prices are designed to give farms more money for working capital, wage funds, and farm machinery purchases. All three elements of this price policy indicate that East European planners are becoming more cost conscious and that responsibility for investment and other day-to-day decisions is being shifted to the farm.

Long term programs also call for reductions in subsidies to inefficient collective farms and for decreases in direct contributions to state-owned farms. (16)

### With Russian Crush on Cottonseed, Cotton Remains Popular Soviet Crop

The Soviet Union—a net importer of vegetable oilseeds and vegetable oils a decade ago—has now become a net exporter of these products.

The Soviet oilseed picture is dominated by sunflowerseed and cottonseed. Together they account for about 90 percent of the nation's output of vegetable oilseeds and oils.

The sunflowerseed harvest was 6.1 million metric tons in 1967. The cotton crop hit an estimated 9.3 million bales, producing almost 4.0 million tons of cottonseed.

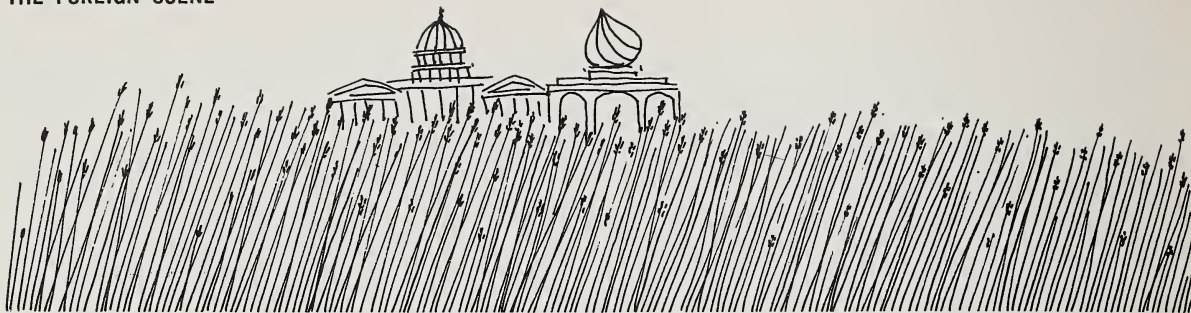
The cotton harvest, for the first time in history, exceeded the U.S. crop, which fell to an estimated 7.6 million bales.

Sunflowerseed production has more than tripled since 1950. And cottonseed available for crushing has risen about two-thirds.

Interest in skyrocketing sunflowerseed production has tended to overshadow cottonseed.

Though cotton is a favored industrial crop and development has benefited from higher government purchase prices and higher input priority, it has faced special difficulties and progress has been uneven since 1950.





## A COMPARISON: AGRICULTURE IN THE U.S. AND THE U.S.S.R.

	United States	1966		USSR
<b>PEOPLE</b> / It takes about a third of the Soviet work force to produce the nation's food and fiber. Only 7 percent of the U.S. labor force is employed in agriculture.	196.9	National population	Millions	233.2
	72.9	Annual average employment	Millions	110.0
	5.2	Annual average employment in agriculture	Millions	39.8
	7.1	Farm share of total work force (annual average)	Percent	36.2
	1.6	Workers per farm	Number	651 State 417 Collective
<b>FARMS</b> / Huge, state-owned or controlled farms, with hundreds of workers each, are the bulwark of Soviet agriculture. By comparison, U.S. farms are small. Most are operated by the farm owner and his family, sometimes with one or two hired workers.	3,239	Number of farms	Thousands	12 State 36 Collective
	351	Land area per farm	Acres	120,632 State 31,425 Collective
	298	Sown cropland	Million acres	511
	92	Sown cropland per farm	Acres	18,038 State 6,919 Collective
<b>INPUTS</b> / The Kremlin recently moved to increase the level of inputs available to Soviet agriculture. But Russian farmers still use about 30 percent as much fertilizer and about one-third as many trucks and tractors as their American counterparts.	84	Fertilizer (plant nutrients) per sown acre	Pounds	30
	4,815	Tractors	Thousands	1,660
	3,100	Trucks	Thousands	1,017
	880	Grain combines	Thousands	531
<b>OUTPUT</b> / With less labor and land and more capital, U.S. agriculture usually tops Soviet farming in terms of output. Even in 1966, when the Russians enjoyed ideal growing conditions for grain and our own were less favorable, we far outpaced the USSR in total grain production. For eight food and feed grains combined, U.S. output totaled 202 million short tons, compared with 158 million in the USSR. (18)	158	Four feed grains	Million short tons	49*
	44	Four food grains	Million short tons	109*
	9,575	Cotton	Thousand bales	9,341
	928	Soybeans	Million bushels	22*
	33	Sunflowerseed	Thousand short tons	6,228*
	1,888	Tobacco	Million pounds	404*
	20,604	Beef and veal	Million pounds	8,245*
	11,328	Pork	Million pounds	7,440*
	650	Mutton, lamb, and goat	Million pounds	1,587*
	7,596	Poultry	Million pounds	1,764*
	120	Milk (cows)	Billion pounds	148* * USDA
	66.4	Eggs	Billion	31.7 estimate.

The early fifties saw abandonment of less productive cotton land and concentration exclusively on irrigated cotton. Although yields improved, production remained fairly constant.

From 1954 to 1960 the cotton area changed little and lint yields remained stable at around 600 pounds per acre. Cottonseed yields about 2 pounds of seed per pound of lint.

In the early sixties, the area sown to cotton rose quickly to a peak of 6.1 million acres, but then yields declined.

Since 1964 the cotton area has stayed about the same, but use of fertilizer has been stepped up and yields have risen steadily—to 757 pounds of lint per acre in 1967. (The U. S. yield dropped to 452 pounds per acre in the unusually poor year for growers. The average yield in Arizona, where cotton land is primarily irrigated, was estimated to be 901 pounds per harvested acre in 1967.)

Soviet plans in this decade call for only slight increases in cotton production. (17)

## Political Climate Crosses Up China's Chance To Make a Great Leap Forward

For Mainland China's agriculture, last year was one of the better—if not best—years under communist rule.

This was quite a feat in face of the cultural revolution which played havoc with other sectors of the economy.

According to statements by Chinese officials at harvest time, total production of grains (including potatoes on a grain equivalent basis of four to one) amounted to about 190 million metric tons in 1967, compared with about 180 million in 1966.

The wheat harvest was said to be 10 percent larger than 1966's poor crop. And rice production was put at a near-record level.

Gains over 1966 were also indicated in livestock numbers and commercial outturn of cotton, sugarcane and sugar beets, bast fibers, tobacco, pulses, and rapeseed. And output on private plots was up substantially.

Virtually ideal weather prevailed throughout the crop season, except for a late-season drought in Chekiang and Fukien Provinces.

However, massive failures in the industrial sector, snarls in communications and transportation facilities, and poor administration of plans and materials by central authorities prevented the Chinese from fully exploiting the advantageous weather.

While the agricultural sector was bypassed by many of the more destructive programs associated with the cultural revolution, there is evidence that farm output did suffer.

The cultural revolution reached its peak in December 1966 and January 1967 in rural areas. Although this was the farmers' off season, much of the off-season work, particularly maintenance and repair of irrigation and drainage facilities, repair of tools, and development of cropping plans, was neglected. Fortunately, the favorable weather eased the normal requirements for irrigation and drainage.

Beginning in February and March, army troops—unprecedented in size and scope of activities—were deployed in rural areas to direct farming operations and to implement the policy of "production over revolution."

Essential spring farmwork, though somewhat behind schedule in many areas, was completed, but numerous problems subsequently arose in administering production and procurement.

Some cadres simply refused to assume responsibility for timely work in collective fields. Peasants took advantage of the disjointed administrative and political climate to divide much of the har-

vest among themselves. Illegal sales and black markets flourished.

The flow of tools, chemical fertilizers, insecticides, and other production supplies to farming areas also was hampered by the country's internal struggles.

Trade statistics from China's free world trading partners point up another cost of the country's political convolutions.

Exports to free world countries (which account for over 75 percent of China's trade) were down 9 percent in 1967 from 1966, while imports rose 16 percent. In both 1965 and 1966, China had managed to increase exports substantially. (19)

## Modern Processing Methods Put An Ancient Food Back on World Menus

Looking for new ways to feed 20th century populations, specialists have turned back to bulgur—a food as old as man.

Bulgur is made from wheat, which in recent years has been in good supply. It can be stored in hot, humid climates for long periods without deterioration. It cooks quickly—and this is important in countries where fuel is scarce and high-priced. Also, there is little loss in volume or food value during processing.

All of these attributes make bulgur ideally suited to the needs of the less developed world. But not until the 1950's was a way found to produce large quantities at a reasonable price.

In the Near and Middle East, where bulgur has long been a dietary staple, the traditional method of preparation was painstaking. The wheat grain was washed by hand, boiled in open kettles, spread in the sun to dry, and then cracked. The result was a crystal-like product used in making bread and cereal dishes, or eaten with a meat dish.

So high were the labor require-



ments and so slow was the preparation process, bulgur was normally prepared only by families for use in the home.

During the 1950's USDA researchers—in cooperation with private industry—developed a new, fast, and relatively cheap process for manufacturing bulgur in volume.

The method moves the grain continuously through the various processing steps. This technique has been further refined, so it is now possible for food manufacturers to economically produce and market bulgur on a commercial basis.

Since the early 1960's, bulgur has been exported from the United States to many less developed countries in various parts of the world.

In 1961/62, in a pilot program, over 20,000 metric tons of bulgur were shipped into Asia, Africa, and Latin America. By 1966/67 exports of bulgur had increased to a level of around 200,000 metric tons.

India has been one of the major recipients of donations of bulgur. In recent years, sizable quantities have also been shipped to South Vietnam. (20)

## Export Payment Aid in Fiscal 1967 Plummets From the Preceding Year

Export payment assistance to shipments abroad of U.S. farm products during fiscal 1967 was down some \$300 million from the year before.

The 1966/67 total was put at \$288.8 million on exports valued at \$2.1 billion. Of this total, \$1.3 billion were commercial sales for dollars and \$800 million were assisted sales under government-financed programs.

Export assistance is given to a limited number of price-supported agricultural commodities. These commodities cannot compete in foreign markets because the exporter who buys at the higher domestic price cannot afford to sell abroad at a lower world price unless he is compensated in some way.

In fiscal 1967 such compensation (in cash or in kind or by means of sales from government-owned stocks at less than domestic market prices) came to \$187.6 million on wheat and flour, \$34.7 million on unmanufactured tobacco, \$34.2 million for milled rice, and \$32.3 million for cotton,

grain sorghums, flaxseed, linseed oil, peanuts, and nonfat dry milk.

Over \$200 million of the decline during fiscal 1967 was the result of smaller export payments for wheat, coupled with a reduction in wheat shipments due to smaller exports under government-financed programs.

Export payments on wheat grain averaged 22.2 cents per bushel in 1966/67, compared with 46.7 cents the year before (including in 1965/66 a refund of all or part of the 30-cents-per-bushel cost of a wheat marketing certificate).

Shipments of wheat under government-financed programs were 180 million bushels less than in fiscal 1966.

Also contributing to the drop in the assistance total were:

—The elimination of export payments-in-kind on upland cotton.

—The suspension of export payment programs for dairy products (with the exception of limited quantities of nonfat dry milk sold to other governments for school lunch programs).

—A drop of nearly \$1 per hundredweight in the average export payment on rice. (25)

## Foreign Spotlight

**COLOMBIA:** The Colombian Agrarian Reform Institute has announced plans to speed up agrarian reform by making all tenant farmers and sharecroppers full landowners in the shortest possible time. From 1961 through 1966 the institute issued more than 46,000 land titles representing more than 4.2 million acres.

**INDIA:** Ample rainfall this winter is now showing up in bumper production of wheat and pulses. Earlier estimates of 15 million metric tons for wheat are now being raised to 17 million tons or higher. The total foodgrain harvest is expected to reach almost 100 million metric tons.

**NEW ZEALAND:** Under a recently signed trade agreement with Yugoslavia, New Zealand will buy \$4.5 million worth of railway equipment from Yugoslavia and, in turn, export substantial amounts of wool, hides and skins, butter, and cheese to Yugoslavia.

**PHILIPPINES:** A traditional rice importer, the Philippines loaded out its first rice export in April. The shipment of 5,000 metric tons was the first half of a consignment bartered to Indonesia for 7,600 metric tons of copra.

**INDONESIA:** The largest Indonesian manufacturer of cigarettes has arranged to buy 200 metric tons of Virginia tobacco for production of a new filter cigarette, and plans to import a total of 800 tons in 1968. (26)



## "more meat, mom"



*It's a rare homemaker who feels medium about meat. A recent poll of housewives reveals many opinions that are frequently showing up in present day shopping trends.*

Meat on the menu tonight? Chances are that Mom will be serving beef or chicken—and most likely the former.

If beef it is, the serving will probably be a product prepared from ground beef. At least this is the type served most frequently by housewives interviewed recently.

This is one of the preliminary findings of a four-quarter survey conducted jointly by the Statistical Reporting Service and the National Livestock and Meat Board.

The purpose of the study was to reveal attitudes and opinions about meat and how they affect consumers' buying habits.

Out of 776 representative homemakers polled in the winter quarter, almost all reported they served some form of ground beef in the previous year. Steak, stew beef, oven roast, and pot roast were also mealtime favorites.

Almost all the interviewees said they had offered beef at a meal in the preceding 12 months. And about the same percentage said they had also served chicken during the year.

Somewhat fewer homemakers reported that they put bacon and fresh pork on the table. But more than half said they fed their families bacon two or more times a week. Pork chops were the most popular form of fresh pork with these homemakers, and ham took the honors in the smoked or cured pork category.

Roughly 25 percent of the homemakers said they cooked lamb during the year, but half of them said they offered it less

than once a month.

And how did housewives feel about the way meat is sold today?

Packaging—among marketing practices—drew by far the most complaints. Homemakers said that prepackaging made it difficult for them to judge proportions of fat and bone and size of cuts. Preparation of the meat itself, handling methods, lack of freshness, and excessive waste drew fewer complaints.

One out of five people suggested that high prices held down their meat purchases. But the same proportion indicated they had no complaints or criticism whatsoever about the way meat is sold.

About one-third agreed that their meat buying was most often determined by price specials, but two in 10 claimed they paid no attention to price specials.

Almost nine out of 10 homemakers said they sometime froze

meat at home. But close to eight out of 10 flatly rejected the idea of buying meat already frozen.

Their reasoning? They couldn't gauge the freshness of the meat, and also objected to buying meat "sight unseen."

When asked the difference between grading and inspection of meats, many homemakers gave confused answers. They assumed that grading (rating meat for quality as USDA Prime, Choice, etc.) included inspection, and that inspection (checking the meat for freshness, wholesomeness, etc.) in turn including grading.

Some also thought that all meats were graded when, in fact, they are not. Most beef (63.7 percent of the commercial slaughter in 1967) is, however.

### Food Price News

Food prices and spending are expected to rise more slowly during the rest of 1968 than they did in the first quarter.

Food spending this January-March showed the largest quarterly increase in over 2 years. It climbed about \$3 billion to an annual rate of \$101 billion. (At the same time, consumers' total personal expenditures rose a record \$16 billion to an annual rate of \$518 billion.)

As spending rose, most food items contributed to an overall rise in food prices to 1.5 percent above the previous quarter and 2.5 percent above March 1967.

For all of 1968, food prices probably will average around 3 percent higher than 1967, when the rise was only 1 percent.

Because of less abundant supplies of meat, dairy products, and fresh and processed fruits, per capita food consumption will be slightly smaller.

Meanwhile, as the U.S. population continues to grow, total food consumption is increasing. Too, the more expensive food items are in greater demand.

Total dollars spent for food this year are expected to be up 5 percent or more from 1967. (27)

Most homemakers agreed on ground beef and weiners when asked to name the meats they favored for easy-to-prepare meals. And ground beef, chicken, and weiners topped the list of meats preferred for use in inexpensive meals.

When special guests are invited it's likely to be a toss-up between roast beef and steak as especially good choices—with chicken and ham following in that order.

Most favored for outdoor cooking are ground beef, steak, weiners, and chicken.

Other majority opinions about some selected meats, cuts, and varieties went as follows:

**Steak.** Most interviewees regarded steak as a prestige meat, suitable for warm weather meals, and likely to please most tastes. But it was also considered expensive and difficult for some people to prepare.

**Roast beef.** Oven roast rated high for special guests and people whose tastes are not known, but pot roast fell down in both categories. Oven roast was said to be expensive, however. And both roasts were named as poor choices for warm weather meals.

**Stew beef.** This meat had virtually no prestige value for the homemakers surveyed and was chosen for a particular use less often than other forms of beef. Though most thought it was inexpensive, it appeared that homemakers are less familiar with stew beef than with other cuts.

**Chicken.** Rated second only to beef, chicken was generally labeled as inexpensive yet suitable for special guests and guests with unknown food preferences. The homemakers felt chicken was especially appropriate for warm weather meals but that uncooked, it had poor keeping qualities.

**Pork.** Pork chops were mentioned as easy to prepare by one in five. Ham and pork both were declared to be tasty. Ham was also considered easy to keep, good

to eat cold, and ideal for warm weather meals as well as company fare. (21)

### Where You Live and What You Earn; Factors That Affect Your Food Bill

The more money we have, the more we'll spend for food.

That's one conclusion to be drawn from the 1960-61 Survey of Consumer Expenditures, although the actual rate of increase in money spent for food is less than the increase in income.

Families at successively higher income levels feel freer to spend more at the grocery store. A 10-percent increase in per capita income adds about 4 percent to the food bill. They also spend more on food away from home—spending increases 8 percent with each 10-percent increase in income.

At the same time, dependence on homegrown food and food received without charge drops by about 9 percent for a 10 percent rise in per capita income.

Other findings show that the poorer the family, the higher the percentage of total income that is spent for food.

Families with incomes of \$15,000 or more (after taxes) spent around 12 percent of their income for food in 1960-61. Families with incomes below \$1,000 used over 50 percent.

The size of the family makes a difference too. Two-person families spent 19 percent of their income on food, but families with six or more people spent 26 percent.

Down on the farm, where the value of home-produced foods figures more importantly in the total, the value of food equals about 26 percent of the family income. In the city, where incomes average higher, families spent a little less than 21 percent. Some regional differences exist but have not been found to be extensive. (22)



**VERTICAL COORDINATION VIA CONTRACT FARMING.** M. Harris and D. T. Massey, Natural Resource Economics Division. Misc. Pub. 1073.

"Coordination" between farmers and their suppliers or buyers facilitates farm and business operations, credit arrangements, forward pricing, and market supplies to meet specifications.

Written or oral, a coordinating contract between a farmer and a contractor establishes legal rights and duties along with economic benefits and burdens. This study examines the risks and responsibilities under various contract forms.

**COSTS AND ECONOMIES OF SCALE IN FEED MANUFACTURING.** C. J. Vosloh, Marketing Economics Division. MRR-815.

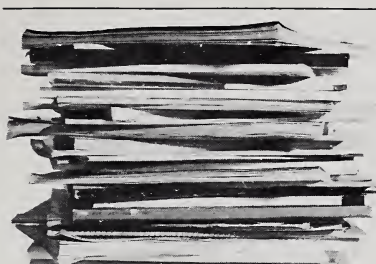
The optimum size of a feed manufacturing facility that would minimize the feed cost per ton to the farmer is estimated. Optimum plant size is dependent on many important factors.

**THE AFRICA AND WEST ASIA AGRICULTURAL SITUATION: REVIEW OF 1967 AND OUTLOOK FOR 1968.** Foreign Regional Analysis Division. ERS-For. 221.

Grain harvests in South Africa, Turkey, and Iran in 1967 broke all previous records. South Africa's 10-million-ton corn crop put it in a position to compete with the United States in world markets.

**CATTLE FEEDING COSTS IN NEBRASKA BY SYSTEM OF FEEDING AND SIZE OF OPERATION.** R. D. Johnson, Farm Production Economics Division, and A. R. Eckert, Nebraska Agricultural Experiment Station. Neb. Agr. Expt. Sta. SB-496.

The relative profits of feeding calves, yearlings, calves and yearlings, and 2-year olds were analyzed in this study. In terms of cost per pound of gain, the calves were most efficient; in terms of profit, 2-year-olds were first.



## RECENT PUBLICATIONS

*The publications listed here are issued by the Economic Research Service and cooperatively by the State universities and colleges. Unless otherwise noted, reports listed here and under Sources are published by ERS. Single copies are available free from The Farm Index, OMS, U.S. Department of Agriculture, Washington, D.C. 20250. State publications (descriptions below include name of experiment station or university after title) may be obtained only by writing to the issuing agencies of the respective States.*

**OPTIMUM RESOURCE USE ON A REPRESENTATIVE RICE FARM UNDER SELECTED TENURE SITUATIONS, ACREAGE ALLOTMENTS AND RICE PRICES: COAST PRAIRIE OF TEXAS.** M. I. Akhtar, Texas A&M University, and T. Mullins, Farm Production Economics Division, MP-868.

Increasing carryover of rice during the early 1950's prompted programs to restrict output and increase farm incomes. Impacts of changes in labor, capital prices, resource use, and income of rice farms are analyzed.

**CONCENTRATED FEEDINGSTUFFS FOR LIVESTOCK IN THE NETHERLANDS, 1960-61 TO 1965-66.** P. W. Weightman, Cornell University, in cooperation with the Foreign Regional Analysis Division. N. Y. Agr. Expt. Sta. A. E. Res. 239.

Quantities and kinds of concentrated feedingstuffs consumed by various classes of livestock are calculated in this study.

**THE WESTERN HEMISPHERE AGRICULTURAL SITUATION: REVIEW OF 1967 AND OUTLOOK FOR 1968.** Foreign Regional Analysis Division. ERS-For. 222.

Food production in Latin America last year increased more than 6 percent, but Canada's drought-struck harvest dropped below the 1966 level. Argentina and Venezuela had strong production gains, and Brazil's output rose to a near-record level.

Agricultural trade prospects for the Hemisphere as a whole are uncertain this year because of large world production and supplies. However, lower availabilities of Canadian feed grains may be offset by large Mexican and Brazilian corn supplies in the year ahead.

**PREFERENTIAL TRADE AGREEMENTS OF FOREIGN COUNTRIES.** D. Chrisler, Foreign Regional Analysis Division. FAER-41.

This report discusses some recent effects of discriminatory preferences on the flow of agricultural trade—U.S. trade in particular.

**THE EUROPE AND SOVIET UNION AGRICULTURAL SITUATION: REVIEW OF 1967 AND OUTLOOK FOR 1968.** Foreign Regional Analysis Division. ERS-For. 220.

Good harvests in Europe and the Soviet Union last year reduced export prospects for U.S. farm commodities in the current trading season. Western Europe's agricultural output surged to a new high, a 6-percent gain over that in 1966.

**MOROCCO'S AGRICULTURAL ECONOMY IN BRIEF.** C. Santmyer, Foreign Regional Analysis Division. ERS-For. 214.

Only a small fraction of Morocco's agricultural sector is modern. Agriculture has been hard pressed to produce enough food and fiber to support a population growing at about 3 percent annually.

**THE CHANGING STRUCTURE OF THE PHILADELPHIA WHOLESALE FRUIT AND VEGETABLE MARKET.** A. J. Burnes, Marketing Economics Division. MRR-816.

Philadelphia produce wholesalers as a group were not very optimistic in 1958 about the future of their business; 60 percent of them thought the outlook was poor. But in 1964, only 41 percent felt that way.

**STATISTICS ON COTTON AND RELATED DATA, 1930-67.** Economic and Statistical Analysis Division. Stat. Bull. 417.

This publication contains 230 tables that enumerate cotton acreage, production, cash receipts, and uses of cotton over almost three decades.

**AN INVENTORY OF MARKET NEWS REPORTS FOR POULTRY.** F. L. Faber, Marketing and Economics Division, and D. E. Stringer, Consumer and Marketing Service. ERS-374.

Report describes poultry market information currently available from Federal, State, and private agencies, and appraises the extent of its use by the industry.

**FOOD GRAIN STATISTICS THROUGH 1967.** Economic and Statistical Analysis Division. Stat. Bull. 423.

World statistics for grains are presented in table form.

### Flower Power

Moving to Alaska? Then you can't count on having a retail florist around the corner. But the State does have 12 retail flower establishments open the year-round, and one of them might be in your area.

New York, by contrast, has about 1,800 retail florists. California isn't far behind with 1,400. Texas and Pennsylvania follow, each with about 1,300.

These statistics, and hundreds more, are found in *Horticultural Specialty Crops—Production and Marketing Trends, 1948-65* (Statistical Bulletin No. 422).

The new publication, prepared by the Economic Research Service in cooperation with the Florists Transworld Delivery Association, carries figures on wholesale, retail, and import trade in all types of floricultural and horticultural crops—ranging from lily-of-the-valley pips to ornamental citrus trees. (23)

**LIBERIA'S AGRICULTURAL ECONOMY IN BRIEF.** S. W. Skinner, Foreign Regional Analysis Division. ERS-For. 212.

In 1966, the United States imported products worth \$58.9 million from Liberia. Of this amount \$32.1 million was of agricultural commodities, consisting of rubber worth \$21.0 million and coffee valued at \$11.1 million.

**THE FAR EAST AND OCEANIA AGRICULTURAL SITUATION: REVIEW OF 1967 AND OUTLOOK FOR 1968.** Foreign Regional Analysis Division. ERS-For. 223.

Agriculture prospered throughout the Far East as a whole in 1967. Production gained 11 percent over 1966, a relatively poor year.

**THE EFFECTS OF INDUSTRIALIZATION ON A RURAL COUNTY: COMPARISON OF SOCIAL CHANGE IN MONROE AND NOBLE COUNTIES OF OHIO.** W. H. Andrews, Ohio Agricultural Research and Development Center, and W. W. Bauder, Economic Development Division. Ohio Agricultural Research and Development Center (Wooster). Dept. Series A.E. 407.

Discussion centers around changes in characteristics of the people and the changes in their social systems that resulted from the rather sudden introduction of a new and quite different ingredient into the local environment.

**SUPPLEMENT TO ERS-FOREIGN 202—12 YEARS OF ACHIEVEMENT UNDER PUBLIC LAW 480.** Foreign Development and Trade Division. ERS-For. 205.

Supplement contains an annual summary by program totals, commercial and noncommercial exports, and principal commodity groups. It also carries special tables for grains, leading dollar markets, and principal countries of destination for government-financed exports.

### Numbers in parentheses at end of stories refer to sources listed below:

1. M. Clough, "Trends and Variations in Corn Yields Over the Past 50 Years," Feed Situa., FdS-222 (P); 2. R. A. Benson, Problems of Financing the Expansion to Large-Scale Dairying (S); 3. Farm Income Situation, FIS-209 (P); 4. Turkeys, Including Inventory Numbers and Numbers Raised, POU 3-1 (68) (P); 5. B. B. Johnson (SM); 6. M. Myers (SM); 7. H. A. Green, The Structure of a Local Economy: A Description of the Asheville Area (M); 8. R. I. Wessel, Alternative Forms of Rural Government for Supplying Public Services (S); 9. W. D. Rasmussen (SM); 10. R. D. McKinney, An Index of Rural Development (M); 11. K. Farrell, Processed Fruits and Vegetables: Interregional Competition in an Expanding Market (S); 12. Marketing and Transportation Situation, MTS-168 (P); 13. Poultry and Egg Situation, PES-250 (P); 14. Cotton Situation, CS-235 (P); 15. & 16. Europe and Soviet Union Branch, Agricultural Policies in Europe and The Soviet Union (M); 17. H. E. Walters (SM); 18. J. A. Levine, Agriculture in the United

States and the USSR: A Statistical Comparison (M); 19. M. R. Larsen (SM); 20. F. R. Gomme, "Bulgur," Wheat Situa., WS-203 (P); 21. M. H. Weidenhamer, E. M. Knott, and L. R. Sherman, Homemakers' Opinions About Selected Meats: A Preliminary Report. SRS-12 (P); 22. S. J. Hiemstra, Consumption, Prices and Expenditures for Food (M); 23. J. Powell, S. Raleigh, and D. Lundquist, Horticultural Specialty Crops—Production and Marketing Trends, 1948-65, Stat. Bul. 422; 24. Farm Real Estate Market Developments, CD-70 (P); 25. E. N. DeBlois, "Export Payment Assistance to U.S. Agricultural Exports, Fiscal Year 1966/67," For. Agr. Trade, June 1968 (P); 26. Foreign Regional Analysis Division (SM); 27. National Food Situation, NFS-124 (P); 28. R. Lifquist (SM).

Speech (S); published report (P); unpublished manuscript (M); special material (SM); \* State publications may be obtained only by writing to the experiment station or university cited.



# ECONOMIC TRENDS

ITEM	UNIT OR BASE PERIOD	'57-'59 AVERAGE	1967		1968		
			YEAR	APRIL	FEBRUARY	MARCH	APRIL
<b>Prices:</b>							
Prices received by farmers	1910-14=100	242	252	245	258	259	259
Crops	1910-14=100	223	224	223	229	231	233
Livestock and products	1910-14=100	258	276	264	282	283	282
Prices paid, interest, taxes and wage rates	1910-14=100	293	342	340	348	350	353
Family living items	1910-14=100	286	322	319	329	330	333
Production items	1910-14=100	262	288	287	290	291	292
Parity ratio		83	74	72	74	74	73
Wholesale prices, all commodities	1957-59=100	—	106.1	105.3	108.0	108.2	108.4
Industrial commodities	1957-59=100	—	106.3	106.0	108.3	108.6	108.8
Farm products	1957-59=100	—	99.7	97.6	101.3	102.1	101.7
Processed foods and feeds	1957-59=100	—	111.7	110.0	113.3	112.9	113.3
Consumer price index, all items	1957-59=100	—	116.3	115.3	119.0	119.5	—
Food	1957-59=100	—	115.2	113.7	117.4	117.9	—
<b>Farm Food Market Basket: <sup>1</sup></b>							
Retail cost	Dollars	983	1,081	1,063	1,100	1,105	—
Farm value	Dollars	388	413	399	424	431	—
Farm-retail spread	Dollars	595	668	664	676	674	—
Farmers' share of retail cost	Percent	39	38	38	39	39	—
<b>Farm Income:</b>							
Volume of farm marketings	1957-59=100	—	124	89	95	98	87
Cash receipts from farm marketings	Million dollars	32,247	42,471	2,649	2,830	3,000	2,700
Crops	Million dollars	13,766	18,310	804	896	900	800
Livestock and products	Million dollars	18,481	24,161	1,845	1,935	2,100	1,900
Realized gross income <sup>2</sup>	Billion dollars	—	48.9	—	—	49.7	—
Farm production expenses <sup>2</sup>	Billion dollars	—	34.4	—	—	34.9	—
Realized net income <sup>2</sup>	Billion dollars	—	14.5	—	—	14.8	—
<b>Agricultural Trade:</b>							
Agricultural exports	Million dollars	4,105	<sup>3</sup> 6,383	<sup>3</sup> 524	547	545	—
Agricultural imports	Million dollars	3,977	<sup>3</sup> 4,454	<sup>3</sup> 363	402	370	—
<b>Land Values:</b>							
Average value per acre	1957-59=100	—	<sup>4</sup> 166	157	<sup>4</sup> 166	—	—
Total value of farm real estate	Billion dollars	—	<sup>4</sup> 188.8	179.7	<sup>4</sup> 188.8	—	—
<b>Gross National Product: <sup>2</sup></b>							
Consumption <sup>2</sup>	Billion dollars	457.4	785.0	—	—	826.7	—
Investment <sup>2</sup>	Billion dollars	294.2	491.7	—	—	518.7	—
Government expenditures <sup>2</sup>	Billion dollars	68.0	112.1	—	—	118.0	—
Net exports <sup>2</sup>	Billion dollars	92.4	176.3	—	—	188.3	—
	Billion dollars	2.7	4.8	—	—	1.7	—
<b>Income and Spending: <sup>5</sup></b>							
Personal income, annual rate	Billion dollars	365.3	626.4	616.5	659.4	666.5	670.1
Total retail sales, monthly rate	Million dollars	17,098	26,125	25,918	27,399	28,129	27,640
Retail sales of food group, monthly rate	Million dollars	4,160	6,011	5,985	6,160	6,275	—
<b>Employment and Wages: <sup>5</sup></b>							
Total civilian employment	Millions	63.9	74.4	73.9	75.7	75.8	75.6
Agricultural	Millions	5.7	3.8	3.8	4.1	4.0	4.0
Rate of unemployment	Percent	5.8	3.8	3.7	3.7	3.6	3.5
Workweek in manufacturing	Hours	39.8	40.6	40.5	40.7	40.7	40.4
Hourly earnings in manufacturing, unadjusted	Dollars	2.12	2.83	2.80	2.94	2.96	2.96
<b>Industrial Production: <sup>5</sup></b>							
1957-59=100		—	158	156	162	163	163
<b>Manufacturers' Shipments and Inventories: <sup>5</sup></b>							
Total shipments, monthly rate	Million dollars	28,745	44,745	43,766	47,243	48,155	—
Total inventories, book value end of month	Million dollars	51,549	82,425	80,059	82,919	83,239	—
Total new orders, monthly rate	Million dollars	28,365	40,007	43,676	47,432	49,056	—

<sup>1</sup> Average annual quantities of farm food products purchased by urban wage-earner and clerical-worker households (including those of single workers living alone) in 1959-61 — estimated monthly. <sup>2</sup> Annual rates seasonally adjusted first quarter. <sup>3</sup> Preliminary. <sup>4</sup> As of November 1, 1967. <sup>5</sup> Seasonally adjusted.

Sources: U.S. Dept. of Agriculture (Farm Income Situation, Marketing and Transportation Situation, Agricultural Prices, Foreign Agricultural Trade and Farm Real Estate Market Developments); U.S. Dept. of Commerce (Current Industrial Reports, Business News Reports, Advance Retail Sales Report and Survey of Current Business); and U.S. Dept. of Labor (The Labor Force and Wholesale Price Index).

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### How Much, Where?

Work all month and take home \$8.

That's just about what the average worker earns for a month of work in 12 countries where one-half of the world's population lives. Annual per capita income in these nations averages less than \$100.

How about the more-than-100 other nations in the world's economy? Workers' average annual incomes exceed \$500 in only 33 of these nations. Our own U.S. per capita income, at the top of the list, is \$2,735 per year.

Here at home, food represents only about 19½ percent of our day-to-day living expenses. In many countries, it is from 40 to 50 percent. In some of the underdeveloped countries it is even higher.

For Malawians, Zambians, and Rhodesians, food accounts for about 20 percent of their daily living expenses; for Canadians, about 22 percent; Australians, about 23 percent; and Danes, about 24 percent.

The Swedes, Belgians, Puerto Ricans, British, and Norwegians round out the group whose food expenditures are under 30 percent of their total consumer purchases.

Netherlanders, South Africans, Frenchmen, Israelis, Luxembourgers, Jamaicans, Irishmen, Austrians, Trinidadians, Tobagians, Finns, Spaniards, Panamanians, and British Guineans are all in the 30- to 39-percent bracket.

The estimated range of expenditures for food by the rest of the world is between 40 to 70 percent of their daily living costs. (28)

# THE FARM INDEX

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